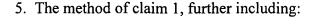<u>CLAIMS</u>:

1. A method for transcoding a bit stream representing frames of speech encoded according to a first vocoder standard to a bit stream representing frames of speech

5   encoded according to a second vocoder standard, comprising:

decoding a bit stream into a first set of vocoder parameters compatible with a first vocoder standard;

transforming the first set of vocoder parameters into a second set of vocoder parameters compatible with a second vocoder standard without converting the first set of

10   vocoder parameters to an analog or digital waveform representation; and

encoding the second set of vocoder parameters into a bit stream compatible with the second vocoder standard.

2. The method of claim 1, wherein the decoding, transforming, and encoding are

15   performed in real time.

3. The method of claim 1, wherein the first and second sets of vocoder parameters include spectral parameters, voicing parameters, gain parameters, and pitch parameters.

20   4. The method of claim 1, wherein the first and second vocoders standards are one of linear predictive coding (LPC), mixed excitation linear predictive (MELP) coding, and time domain voicing cutoff (TDVC).

5. The method of claim 1, further including:

synthesizing the encoded bit stream representing the second set of vocoder

parameters into an analog speech signal.

5   6. A method for transcoding data, comprising:

receiving first parametric data encoded according to a first encoding standard; and

transforming the first parametric data to second parametric data encoded

according to a second encoding standard, wherein the transforming occurs without

converting the parametric data to an analog or digital waveform representation.

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7. The method of claim 6, wherein the first parametric data and second parametric data

represent encoded speech.

8. The method of claim 6, wherein the transforming is performed in real time.

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9. The method of claim 6, wherein the first parametric data and second parametric data

include spectral parameters, voicing parameters, gain parameters, and pitch parameters.

10. The method of claim 6, wherein the first and second encoding standards are one of

20   linear predictive coding (LPC), mixed excitation linear predictive (MELP) coding, and

time domain voicing cutoff (TDVC).

11. The method of claim 6, further comprising:

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encoding the second parametric data into a bit stream according to the second

encoding standard.

12. A method of converting data from a first compressed format to a second compressed
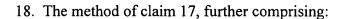
format, comprising:

receiving a data stream in a first compressed format; and

transforming the data stream to a second compressed format without performing

decompression of the data.

13. The method of claim 12, wherein the converting is performed in real time.

14. The method of claim 12, wherein the data stream represents parametric data.

15. The method of claim 12, wherein the data stream in the first compressed format

represents encoded speech.

16. The method of claim 12, wherein the data stream contains spectral parameters,

voicing parameters, gain parameters, and pitch parameters.

17. The method of claim 12, wherein the first and second compressed formats are one of

linear predictive coding (LPC), mixed excitation linear predictive (MELP) coding, and

time domain voicing cutoff (TDVC).

18. The method of claim 17, further comprising:

encoding the data stream into a bit stream according to the second compressed format, after transforming the data stream to the second compressed format.

5   19. A transcoder for transcoding a bit stream representing frames of speech encoded according to a first vocoder standard to a bit stream representing frames of speech encoded according to a second vocoder standard, comprising:

a decoder decoding a bit stream into a first set of vocoder parameters compatible with a first vocoder standard;

10   a conversion unit transforming the first set of vocoder parameters into a second set of vocoder parameters compatible with a second vocoder standard without converting the first set of vocoder parameters to an analog or digital waveform representation; and

an encoder encoding the second set of vocoder parameters into a bit stream compatible with the second vocoder standard.

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20. A method for transcoding a bit stream representing frames of data encoded according to a first compression standard to a bit stream representing frames of data encoded according to a second compression standard, comprising:

decoding a bit stream into a first set of parameters compatible with a first

20   compression standard;

transforming the first set of parameters into a second set of parameters compatible with a second compression standard without converting the first set of parameters to an analog or digital waveform representation; and

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encoding the second set of parameters into a bit stream compatible with the

second compression standard.